

The opinion in support of the decision being entered today was *not* written for publication and is *not* binding precedent of the Board.

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES

Ex parte FLORIAN PESTONI and JOEL L. WOLF

Appeal 2007-0962
Application 09/928,347
Technology Center 2100

Decided: May 15, 2007

Before LEE E. BARRETT, JAY P. LUCAS, and JOHN A. JEFFERY,
Administrative Patent Judges.

JEFFERY, *Administrative Patent Judge.*

DECISION ON APPEAL

Appellants appeal under 35 U.S.C. § 134 from the Examiner's rejection of claims 1-23. We have jurisdiction under 35 U.S.C. § 6(b). We affirm.

STATEMENT OF THE CASE

Appellants invented a method of enabling a content provider to maximize bandwidth allocation while also enabling the audience to gain more control over the content they receive. Specifically, the invention involves collaborative content programming in which users express their preferences by voting on the content they receive. These votes are then used to determine what content to deliver at any point in time. Bandwidth is dynamically allocated to multiple channels and users are assigned to the channel(s) that best match their preferences.¹ Claim 1 is illustrative:

1. A method of optimizing bandwidth allocation based on selective filtering, distribution of content and allocation of users to said distributed content, one or more steps of said method performed over a network, said method comprising:

dynamically allocating said bandwidth to a plurality of communication channels, each of said channels retaining one or more instances of content;

recursively receiving user preferences of content information from multiple users, said preferences comprising one or more of: selection requests for specific content, evaluations of existing content, and evaluations of potential content;

dynamically retaining within a selected channel a collection of specific instances of content based on a collation of said preferences, said collection placed on an allocated communication channel over a period of time; and

¹ See generally Specification page 6, line 16 through page 8, line 4.

dynamically allocating user access to said channels based on a best match with said preferences.

The Examiner relies on the following prior art references to show unpatentability:

Noll	US 2002/0054087 A1	May 9, 2002 (filed Apr. 17, 2001)
Hosken	US 6,438,579 B1	Aug. 20, 2002 (filed Jul. 14, 2000)

The Examiner's rejection² is as follows:

Claims 1-23 are rejected under 35 U.S.C. § 103(a) as unpatentable over Noll in view of Hosken.

Rather than repeat the arguments of Appellants or the Examiner, we refer to the Brief³ and the Answer for their respective details. In this decision, we have considered only those arguments actually made by Appellants. Arguments which Appellants could have made but chose not to make in the Brief have not been considered and are deemed to be waived. *See* 37 C.F.R. § 41.37(c)(1)(vii).

² The Examiner withdrew a previous rejection of claims 9 and 22 under 35 U.S.C. § 112 (Answer 3).

³ An Appeal Brief was first filed on Nov. 9, 2005 and a first Examiner's Answer filed Jan. 27, 2006. A second Appeal Brief was filed on Aug. 23, 2006 to correct various defects identified by the Examiner. On Sept. 18, 2006, a third Brief was filed. In response, the Examiner filed an Examiner's Answer on Oct. 6, 2006. However, a third Examiner's Answer was filed on Nov. 15, 2006 to include a missing signature. *See* Appeal Center Communication filed Oct. 26, 2006 (notifying Examiner of missing signature). In this decision, we refer to the third Brief (filed Sept. 18, 2006) and the Answer filed Nov. 15, 2006.

OPINION

It is our view, after consideration of the record before us, that the evidence relied upon and the level of skill in the particular art would have suggested to one of ordinary skill in the art the invention set forth in the claims on appeal. Accordingly, we affirm.

In rejecting claims under 35 U.S.C. § 103, it is incumbent upon the Examiner to establish a factual basis to support the legal conclusion of obviousness. *See In re Fine*, 837 F.2d 1071, 1073, 5 USPQ2d 1596, 1598 (Fed. Cir. 1988). In so doing, the Examiner must make the factual determinations set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 17, 148 USPQ 459, 467 (1966). Furthermore, “‘there must be some articulated reasoning with some rational underpinning to support the legal conclusion of obviousness’ [H]owever, the analysis need not seek out precise teachings directed to the specific subject matter of the challenged claim, for a court can take account of the inferences and creative steps that a person of ordinary skill in the art would employ.” *KSR Int’l Co. v. Teleflex Inc.*, 127 S. Ct. 1727, 1741, 82 USPQ2d 1385, 1396 (2007) (quoting *In re Kahn*, 441 F.3d 977, 988, 78 USPQ2d 1329, 1336 (Fed. Cir. 2006)).

If the Examiner’s burden is met, the burden then shifts to the Appellants to overcome the prima facie case with argument and/or evidence. Obviousness is then determined on the basis of the evidence as a whole and the relative persuasiveness of the arguments. *See In re Oetiker*, 977 F.2d 1443, 1445, 24 USPQ2d 1443, 1444 (Fed. Cir. 1992).

Regarding independent claim 1, the Examiner's rejection essentially finds that Noll teaches every claimed feature except for receiving user

content preferences from multiple users. The Examiner cites Hosken as teaching this feature and concludes that it would have been obvious to one of ordinary skill in the art at the time of the invention to modify Noll to collate preferences from multiple users to increase efficiency, provide consistency with users' personal interests, and enable a wider variety of content recommendations to users (Answer 5-6, 23).

Appellants argue that the prior art does not disclose the claimed dynamic allocation and collation elements as claimed (Br. 10). Additionally, Appellants argue that it is improper to combine Hosken with Noll since both references disclose different content delivery methods: Noll provides channels, while Hosken provides a static list or table of content information (Br. 10-11). Appellants add that even if the combination was proper, the combination at best teaches comparing one user's profile against other users—not collating preferences as claimed (Br. 11).

Appellants argue that Noll's content is not dynamically allocated or retained, but rather merely classified and filtered before it is sent to the user (Br. 11). Appellants further argue that Noll is silent regarding collating preferences from multiple users, but rather merely collects content based on single user preferences (Br. 12-13).

Regarding the secondary reference to Hosken, Appellants contend that Hosken does not disclose dynamically allocating bandwidth in multiple channels to which users are allocated access. According to Appellants, Hosken merely discloses a content referral system tailored to the personalized interests of a single user (Br. 13-14). Appellants also contend that Hosken does not disclose collating preferences by multiple users, but

merely compares one user's profile to another user's profile so that suggestions are presented to an individual user (Br. 14).

The Examiner argues that Noll dynamically allocates bandwidth to multiple channels as claimed. In this regard, the Examiner notes that Noll's "virtual channels" have varying bandwidth requirements depending on particular types of content allocated to a particular channel. Therefore, the bandwidth is dynamically allocated to each channel in Noll based on the content assigned to the channel (Answer 20-21).

The Examiner also argues that although Noll collates preferences from a single user to tailor content delivered via virtual channels, Hosken teaches tailoring content for a user based on collating preferences of multiple users. According to the Examiner, modifying Noll with Hosken's collaborative approach would, among other things, expand the types of content that are available to the user (Answer 21-23).

We will sustain the Examiner's rejection of independent claim 1. At the outset, we agree with the Examiner that Noll discloses essentially every feature of claim 1 except for receiving user content information preferences from multiple users.

Noll's personalized content delivery system transmits content 122 on "virtual channels" 124 over a broadband connection to user machine 18 based, at least in part, on user feedback (Noll, ¶ 0039; Fig. 1). To this end, Noll's system targets or filters content for users based on user personal profiles, feedback, or other criteria. Not only does the user's personal profile include descriptive data about the user and the user's content preferences, but the user's profile can be dynamically updated to reflect changes in the user's preferences (Noll, ¶ 0063).

In operation, POP client server 80 receives virtual channels 124 broadcast from the network operations center (NOC) 18. The POP client server, in turn, propagates those virtual channels that have actually been requested by at least one client 20 to user machine 18 (Noll, ¶¶ 0076, 0044; Fig. 11).

Significantly, the POP client server in Noll also determines the bandwidth capacity of the user machine 18. Based on this determination, only those virtual channels that do not exceed the available bandwidth are propagated to the user machine (Noll, ¶¶ 0077-78; Fig. 12).⁴ In our view, such a selective allocation of bandwidth to accommodate transmitted virtual channels in Noll fully meets the dynamic bandwidth allocation and user access allocation limitations of claim 1. Appellants' arguments to the contrary are simply not commensurate with the scope of the claim language.

Although Noll indicates that content is targeted based on a single user's profile, we see no reason why the skilled artisan would not have combined the teachings of Hosken – a system that recommends content based on multiple users' preferences – with Noll essentially for the reasons stated by the Examiner.

Hosken delivers content recommendations to a user based on combined profiling data collected from multiple users. Specifically, Hosken's system utilizes (1) explicit profiling data provided by the user, and (2) implicit profiling data derived by the referral system 20 to provide customized recommendations for particular users. Such profiling data is

⁴ See also Noll, ¶ 0066 (noting that content scheduler 138 may schedule content based on the bandwidth necessary to receive the content (e.g., scheduling high-bandwidth content together)).

combined to form a collaboratively-developed basis for modifying and expanding on the individualized recommendations that might be otherwise produced by the referral system (Hosken, col. 4, ll. 44-55).

In a preferred embodiment, Hosken utilizes collected group behaviors along with user information to ultimately recommend content to the user. Such group behaviors not only reflect the collective consideration and review of different content items, the behaviors also are derived from external polls, rankings, and ratings of different media items (Hosken, col. 9, ll. 23-52; Fig. 2). In essence, this collaborative function reflects the values and interests of the user community that ultimately desirably affects the specific content recommendations (Hosken, col. 9, ll. 33-38). Moreover, such a function effectively dynamically collates preferences as claimed giving the term “collation” its broadest reasonable interpretation – an interpretation that fully comports with Appellants’ definition of the term.⁵

In view of the stated advantages of utilizing the collective preferences of multiple users as noted by Hosken above, the skilled artisan would have ample reason to collate preferences from multiple users in lieu of a single user’s preferences in Noll when targeting content to the user. By accounting for preferences across the user community in Noll’s system in lieu of only a single user, the range of content recommendations would, at a minimum, be expanded and enhanced.

Although Appellants argue that Noll and Hosken provide different methods of content delivery (Br. 10-11), the exact method of content delivery employed in Hosken is not germane to the reason the Examiner

⁵ See Brief, page 11.

cited the reference -- namely to show the advantages of using multiple users' preferences to recommend content to a user. Indeed, Noll amply teaches delivering content to users over virtual channels.

In short, we find ample reasons on this record why the skilled artisan would have combined the teachings of Hosken with Noll. Although Appellants contend that “[t]he teaching to modify the references *must* come from the references themselves” (Br. 11; emphasis added), we note that the reason to combine references need not be found in the references themselves, but rather may be found in the knowledge of the skilled artisan or from the nature of the problem to be solved. *DyStar Textilfarben GmbH & Co. Deutschland KG v. C.H. Patrick Co.*, 464 F.3d 1356, 1366, 80 USPQ2d 1641, 1649 (Fed. Cir. 2006); *see also In re Kahn*, 441 F.3d 977, 987-88, 78 USPQ2d 1329, 1336 (Fed. Cir. 2006); *KSR Int’l Co. v. Teleflex Inc.*, 127 S. Ct. at 1741, 82 USPQ2d at 1396.

For at least these reasons, we will sustain the Examiner’s rejection of independent claim 1. Since Appellants have not separately argued the patentability of dependent claims 2-8 and 10, these claims fall with independent claim 1. *See In re Nielson*, 816 F.2d 1567, 1572, 2 USPQ2d 1525, 1528 (Fed. Cir. 1987); *see also* 37 C.F.R. § 41.37(c)(1)(vii).

Regarding claim 9, Appellants argue that Hosken does not disclose dynamically allocating user access based on a user’s preferences with that of the collaborative preferences of the one or more dynamically allocated communication channels as claimed (Br. 16). The Examiner responds that Noll discloses a single user content system, and Hosken enables content recommendations based on multiple user preferences (Answer 23-24).

We will sustain the Examiner's rejection of claim 9. We agree with the Examiner that the collective teachings of Noll and Hosken reasonably suggest dynamically allocating user access to the dynamically-allocated channels as claimed giving the limitations their broadest reasonable interpretation. First, Noll's targeting content based on the user's preferences and limiting user access to only those virtual channels based on the available bandwidth in effect allocates user access to dynamically-allocated channels. Our previous discussion of Noll applies equally here and we incorporate that discussion by reference.⁶ Although Noll does not disclose matching collaborative preferences as claimed, Hosken amply discloses recommending content based on collaborative preferences.⁷ In our view, the collective teachings of Noll and Hosken reasonably would have suggested to the skilled artisan allocating user access based on matching collaborative preferences as claimed. The Examiner's rejection of claim 9 is therefore sustained.

Regarding independent claim 11, Appellants argue, among other things, that the prior art does not disclose a content engine aggregating the specific content requests and requestor evaluations of specific content as claimed. According to Appellants, Noll provides content to a single user based on their individual preferences, and Hosken compares one user's profile to another user's profile such that suggestions are made to one individual user (Br. 17-18). The Examiner argues that Hosken discloses a content engine that aggregates actions and behaviors of multiple users and

⁶ See pages 6-7, *supra*, of this opinion.

⁷ See *id.* at 7-8.

utilizes specific content requests in conjunction with other users' collected evaluations (ratings) and that such a teaching would have been reasonably combinable with Noll's system (Answer 14-15, 24-25).

We will sustain the Examiner's rejection of claim 11 essentially for the reasons stated by the Examiner. As the Examiner indicates, Hosken teaches aggregating both content requests and evaluations of specific content. In our view, such a teaching would have been reasonably combinable with the content delivery system of Noll – a system that effectively connects content requestors to available channels – for the reasons previously discussed.⁸

For at least these reasons, the Examiner's rejection of independent claim 11 is sustained. Since Appellants have not separately argued the patentability of dependent claims 12-21, these claims fall with independent claim 11. *See* 37 C.F.R. § 41.37(c)(1)(vii).

Regarding claims 22 and 23, Appellants argue that Hosken does not disclose (1) using channels; (2) group or joint decision making regarding provided content; and (3) collating preferences. Appellants also reiterate that there is no suggestion or motivation to combine the references as the teaching must come from the references themselves (Br. 17-18). The Examiner argues, among other things, that Appellants' arguments with respect to the "group or joint decision making" function are not commensurate with the claim language. The Examiner also argues that collating preferences merely requires collecting preferences – a feature disclosed in the prior art (Answer 25).

⁸ *See id.*

We will sustain the Examiner's rejection of claims 22 and 23. As we discussed previously, Noll amply discloses providing user access to certain virtual channels based on the user's preferences and available bandwidth. Our previous discussion of Noll applies equally here and we incorporate that discussion by reference.⁹ Second, as we noted previously, Hosken utilizes collected group behaviors along with user information to ultimately recommend content to the user – a feature that would have been reasonably combinable with Noll for the reasons previously discussed.¹⁰

Lastly, we note that neither claim 22 nor claim 23 recites a “collation of preferences” – a limitation argued by Appellants on the line bridging pages 18 and 19 of the Brief. Accordingly, Appellants' argument in this regard is simply not commensurate with the claim language. In any event, we agree with the Examiner that Hosken amply suggests collecting users' preferences: a teaching reasonably combinable with Noll for the reasons previously discussed.¹¹ For at least these reasons, the Examiner's rejection of claims 22 and 23¹² is therefore sustained.

⁹ *See id.*

¹⁰ *See id.* at 6-7.

¹¹ *See id.*

¹² We note in passing that an apparent typographical error exists in claim 23. In line 2, the term “selective” should be changed to “selectively” for clarity. Because the parties did not raise this issue on appeal, it is not before us. In an *ex parte* appeal, the Board is basically a board of review. That is, we review rejections made by patent examiners. *Ex parte Gambogi*, 62 USPQ2d 1209, 1211 (B.P.A.I. 2001). Accordingly, we leave resolution of this issue to the Examiner and the Appellants.

DECISION

We have sustained the Examiner's rejection with respect to all claims on appeal. Therefore, the Examiner's decision rejecting claims 1-23 is affirmed.

No time period for taking any subsequent action in connection with this appeal may be extended under 37 C.F.R. § 1.136(a)(1)(iv).

AFFIRMED

tdl/ce

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